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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/572,506

03/17/2006

Tae-Hyun Jeon

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08/28/2009

OLIFF & BERRIDGE, PLC

P.O. BOX 320850

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EXAMINER

HAN, KWANG S

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

08/28/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/572,506	Applicant(s) JEON ET AL.	
	Examiner Kwang Han	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 1-3,5-10,13,15,17 and 21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4,11,14,16 and 18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/17/06</u> . | 6) <input type="checkbox"/> Other: _____ |

LITHIUM ION SECONDARY BATTERY

Examiner: K. Han SN: 10/572,506 Art Unit: 1795 August 27, 2009

Election/Restrictions

1. Applicant's election with traverse of Group III, claims 4, 11, 14, 16, and 18 in the reply filed on June 5, 2009 is acknowledged. The traversal is on the ground(s) that the Watanabe reference does not disclose a can having a flange at an end as recited in independent claims 1, 3, and 4. This is not found persuasive because the Abstract and Drawing 1 of Watanabe clearly shows a flange at the end of the battery can.

The requirement is still deemed proper and is therefore made FINAL.

2. Claims 1-3, 5-10, 12, 13, 15, and 17 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement.

Priority

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Objections

4. Claim 4 is objected to because of the following informalities: The word "fist" in the sixth line of claim 4 should be "first". Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

7. Claim 4, 11, 14, 16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiratsuka et al. (WO 99/25036 using US 6746798 for translation and citation) in view of Watanabe et al. (US 5279623).

Regarding claim 4 and 18, Hiratsuka is directed towards a lithium ion secondary battery (1:16-24) comprised of a can (1) with a opening at an upper portion (Figure 9), a flange extended outward from an upper end of the can, a step formed on one side wall with a first lower surface (bottom of flange), a second lower surface (top of flange), and a second wall (side of cap) (Figure 9). Hiratsuka further discloses a plate-like cover (2, cap) having a flange that is secured to the can by seam welding forming a sealed container (5:23-28), a terminal (5:3-22) and an electrode assembly (4:20-28) but is

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silent towards micro-arc welding and a terminal protruded through the second lower surface.

Watanabe teaches a method of forming an electrochemical device where the members for a case are joined by using a micro plasma welding process because it provides for providing good sealing performance without deforming the case by heat distortion (2:3-20). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a micro plasma welding process to seal the cover of the battery to the case in the battery of Hiratsuka because Watanabe teaches that micro plasma welding is a suitable process for providing good sealing performance without deforming the case by heat distortion.

Regarding the placement of the terminals, it would have been obvious to place the terminals in any position within the battery casing since the courts have held that the positioning of the terminal is held unpatentable because shifting the position of the terminal would not have modified the operation of the device. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950) (MPEP 2144.04).

Regarding claim 11, Hiratsuka discloses a battery cover which has a flat shape (Figure 9).

Regarding claim 14, Hiratsuka discloses a battery cover with a flange that faces the flange of the can and has a space which is formed when opened (Figure 9).

Regarding claim 16, Hiratsuka discloses a flange which has a width of 0.4mm and is 5% or less of the long side length of the battery (48mm length) (4:39-44).

Contact/Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kwang Han whose telephone number is (571) 270-5264. The examiner can normally be reached on Monday through Friday 8:00am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571) 272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/K. H./
Examiner, Art Unit 1795

/Dah-Wei D. Yuan/
Supervisory Patent Examiner, Art Unit 1795